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EXAMINER	
ANGLO, LHEIREN MAE ACOSTA	

ART UNIT	PAPER NUMBER
2832	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No.	Applicant(s)	
	10/540,320	KERZOG ET AL.	
	Examiner	Art Unit	
	LHEIREN MAE A. ANGLO	2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,4,6-35 and 37-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,6-10,12-16,18-24 and 27-54* is/are rejected.

7)☒ Claim(s) *3,11,17,25 and 26* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 June 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1,4,7-10,12-16,18-21,24,28-31 and 39-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan [US 6,993,803] in view of Katsumi [US 6,369,341].

In regard to claim 1, Chan teaches in [Fig. 3] an electrical appliance housing, comprising: a housing body [80] defining a mechanism-activation aperture; a soft membrane [102] configured to seal the aperture; a base [120] bonded to the membrane; an actuating button [110] fastened to the base, and at least one elastic bar [hook portion of 120 on the right side] securing the base to the housing body, wherein the membrane is directly bonded to the base and the elastic bar. Chan does not teach a hard plastic housing body and base and a soft plastic membrane. Katsumi teaches in [Fig. 6] a hard plastic housing body [1] and base [2] and a soft plastic membrane [21,22 and 25. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a hard plastic housing body and base in order to protect the switch components and a soft plastic membrane for user comfort.

In regard to claim 4, Chan teaches in [Fig. 3] that the membrane defines a recess [left portion of 102 that touches 120], at least an outer side of the base penetrating the membrane through the recess.

In regard to claim 7, Chan teaches in [Fig. 3] that the actuating button and the base are joined together.

In regard to claim 8, Chan teaches in [Fig. 3] that the base defines a blind-end bore [122] configured to receive a neck [114] of the actuating button.

In regard to claim 9, Chan teaches the limitations of claim 7. Chan does not teach that the actuating button exhibits material homogeneity with the base. Katsumi teaches in [Figs. 4 and 6] that the actuating button [20] exhibits material homogeneity with the base [2]. It would have been obvious to one of ordinary skill in the art at the time of the invention to also provide both a plastic button and a plastic base for easier manufacturing. Chan and Katsumi teach the claimed invention except for integrally molding the button onto the base. It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrally mold the button to the base, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

In regard to claim 10, Chan teaches in [Fig. 3] that the membrane comprises an edge section [portion touching the left side protruding part of 120] that encloses the

base and projects beyond the base towards an outer side of the electrical appliance housing.

In regard to claim 12, Chan teaches in [Fig. 3] that the edge section of the membrane forms a boundary for a recess that axially adjoins the base and is configured to receive a section of the actuating button.

In regard to claim 13, Chan teaches in [Fig. 3] that the base comprises a radial projection [protruding portion of 120 on the left].

In regard to claim 14, Chan teaches in [Fig. 3] that the housing body is bonded to the membrane.

In regard to claim 15, Chan teaches in [Fig. 3] that at least one protruding membrane support member [portion attached to hook portion on right side of 102] is fastened to the base.

In regard to claim 16, Chan teaches in [Fig. 3] that the at least one elastic bar is shaped in an arcuate or undulating configuration.

In regard to claim 18, Chan teaches in [Fig. 3] that the actuating button is positioned on the membrane.

In regard to claim 19, Chan teaches in [Fig. 3] that the actuating button is positioned in the membrane.

In regard to claim 20, Chan and Katsumi teach the claimed invention except for integrally molding the elastic bar with the housing body. It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrally mold the elastic bar with the housing body, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

In regard to claim 21, Chan teaches in [Fig. 3] at least one protruding membrane support member [portion attached to the hook portion of 120] is fastened to the at least one elastic bar.

In regard to claim 24, Chan teaches in [Fig. 3] that the edge section of the membrane abuts against an edge section of the actuating button with a press-fit.

In regard to claim 28, the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

In regard to claim 29, Chan teaches in [Fig. 3] an electrical appliance housing, comprising: a housing body [80] defining a switch-activation aperture; a rigid base [120] positioned within the switch-activation aperture; a flexible membrane [102] extending across the aperture and directly bonded to the housing body and the base to seal the aperture in a substantially liquid-tight manner, with the base exposed on an inner side of the membrane; and a manually manipulable actuating button [110] secured to the base and exposed on an outer side of the membrane, such that manual manipulation of the

button resiliently flexes the membrane and moves the base, and at least one elastic bar [hook portion of 120 on the right side] securing the base to the housing body, wherein the membrane is directly bonded to the at least one elastic bar.

In regard to claims 30 and 31, Chan and Katsumi teach the claimed invention except for integrally extending at least one elastic bar from the housing body. It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrally extend at least one elastic bar from the housing body, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

In regard to claims 39 and 42, Chan teaches in [Fig. 3] that the at least one elastic bar lies on an inner side of the membrane.

In regard to claims 40 and 43, Chan teaches the claimed invention except for permanently attaching the at least one elastic bar to the housing body. It would have been obvious to one of ordinary skill in the art at the time the invention was made to permanently attach the at least one elastic bar to the housing body, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

In regard to claims 41 and 44, Chan teaches the claimed invention except for integrally forming the elastic bar with the housing body. It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrally mold the

elastic bar with the housing body, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

In regard to claims 45 and 48, Chan teaches in [Fig. 3] that the at least one elastic bar underlies a portion of the membrane such that the portion of the membrane is supported by the at least one elastic bar.

In regard to claims 46 and 49, Chan teaches in [Fig. 3] that a free end of the at least one elastic bar is located in a central region of the aperture.

In regard to claims 47 and 50, Chan teaches in [Fig. 3] that the at least one elastic bar is arranged in a plane parallel to a plane in which the aperture lies.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chan [US 6,993,803] in view of Katsumi [US 6,369,341] further in view of Hochgesang et al. [Hochgesang hereinafter, US 5,642,950]. Chan teaches in [Fig. 3] an actuating button, membrane and housing. Chan does not teach that the actuating button protrudes beyond the membrane towards an outer side of the electrical appliance housing. Hochgesang teaches in [Fig. 1] that the actuating button [9] protrudes beyond the membrane [6 and col. 2, lines 39+] towards an outer side of the electrical appliance housing [1,3]. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide that the actuating button protrudes beyond the membrane to provide the user with an indicator for the actuator.

Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan [US 6,993,803] in view of Katsumi [US 6,369,341] further in view of Buchan et al. [Buchan hereinafter, US 6,064,019].

In regard to claim 22, Chan teaches in [Fig. 3] a neck [114]. Chan and Katsumi do not teach that the neck comprises at least one radial rib. Buchan teaches in [Fig. 2] that the neck [34] comprises at least one radial rib [22]. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a radial rib for secure attachment of the button to the housing.

In regard to claim 23, Chan teaches in [Fig. 3] a neck [114]. Chan and Katsumi do not teach that the neck comprises at least one radial bead. Buchan teaches in [Fig. 2] that the neck [34] comprises at least one radial bead [22]. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a radial rib for secure attachment of the button to the housing.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chan [US 6,993,803] in view of Katsumi [US 6,369,341] further in view of Takano et al. [Takano hereinafter, US 5,382,767]. Chan teaches in [Fig. 3] a radial projection. Chan and Katsumi do not teach that the radial projection comprises a circumferential shoulder. Takano teaches in [Fig. 2] that the radial projection comprises a circumferential shoulder [pointed to by 16]. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a circumferential shoulder for the radial projection in order to provide a desired fit between the membrane and base.

Claims 32-35, 37,38 and 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hochgesang et al. [Hochgesang hereinafter, US 5,642,950] in view of Katsumi [US 6,369,341].

In regard to claim 32, Hochgesang teaches in [Fig. 1] an electrical appliance housing, comprising: a housing body [1,3] defining a mechanism-activation aperture; a soft plastic membrane [6 and col. 2, lines 39+] configured to seal the aperture; a base [4] bonded to the membrane; and an actuating button [9] fastened to the base, wherein the base comprises a radial projection [stems on 4], and the base is free of through-holes. Hochgesang does not teach a hard plastic housing body and base. Katsumi teaches in [Fig. 6] a hard plastic housing body [1] and base [23]. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a hard plastic housing body and base in order to protect the switch components.

In regard to claim 33, Hochgesang teaches in [Fig. 1] at least one elastic bar [5] secures the base to the housing body.

In regard to claim 34, Hochgesang teaches in [Fig. 1] that the at least one elastic bar integrally extends from the housing body.

In regard to claim 35, Hochgesang and Katsumi teach the claimed invention except for integrally molding the elastic bar with the housing body. It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrally mold the elastic bar with the housing body, since it has been held that forming in one

piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

In regard to claim 37, Hochgesang teaches in [Fig. 1] that the housing body is bonded to the membrane.

In regard to claim 38, Hochgesang teaches in [Fig. 1] that at least one protruding membrane support member [8] is fastened to the base.

In regard to claim 51, Hochgesang teaches in [Fig. 1] that the at least one elastic bar underlies a portion of the membrane such that the portion of the membrane is supported by the at least one elastic bar.

In regard to claim 52, Hochgesang teaches in [Fig. 1] that a free end of the at least one elastic bar is located in a central region of the aperture.

In regard to claim 53, Hochgesang teaches in [Fig. 1] that the at least one elastic bar is arranged in a plane parallel to a plane in which the aperture lies.

In regard to claim 54, Hochgesang teaches in [Fig. 1] an electrical appliance housing, comprising: a housing body [1,3] defining a mechanism-activation aperture; a soft plastic membrane [6 and col. 2, lines 39+] configured to seal the aperture; a base [4] bonded to the membrane; and an actuating button [9] fastened to the base, the actuating button protruding beyond the membrane towards an outer side of the electrical appliance housing; and at least one elastic bar [5] securing the base to the housing body. Hochgesang does not teach a hard plastic housing body and base.

Katsumi teaches in [Fig. 6] a hard plastic housing body [1] and base [23]. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a hard plastic housing body and base in order to protect the switch components.

Allowable Subject Matter

Claims 3,11,17,25 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In regard to claim 3, the references do not teach that the base is free of through-holes.

In regard to claim 11, the references do not teach that the edge section of the membrane comprises an annular projection, the annular projection comprising an end face configured to engage an underside of the actuating button.

In regard to claim 17, the references do not teach that the base is free from penetration by the actuating button.

In regard to claim 25, the references do not teach that the recess and the section of the actuating button are shaped in a conical configuration. Claim 26 is dependent on claim 25.

Response to Arguments

Applicant's arguments with respect to claims 1,4,7-10,12-16,18-23,27-35 and 37-44 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LHEIREN MAE A. ANGLO whose telephone number is (571)272-2730. The examiner can normally be reached on Monday to Friday 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. A. A./
Examiner, Art Unit 2832
/Lincoln Donovan/
Supervisory Patent Examiner, Art Unit 2816